Title: **Method And System For Providing Constraint-Based Guidance To A Designer In A Collaborative Design Environment**
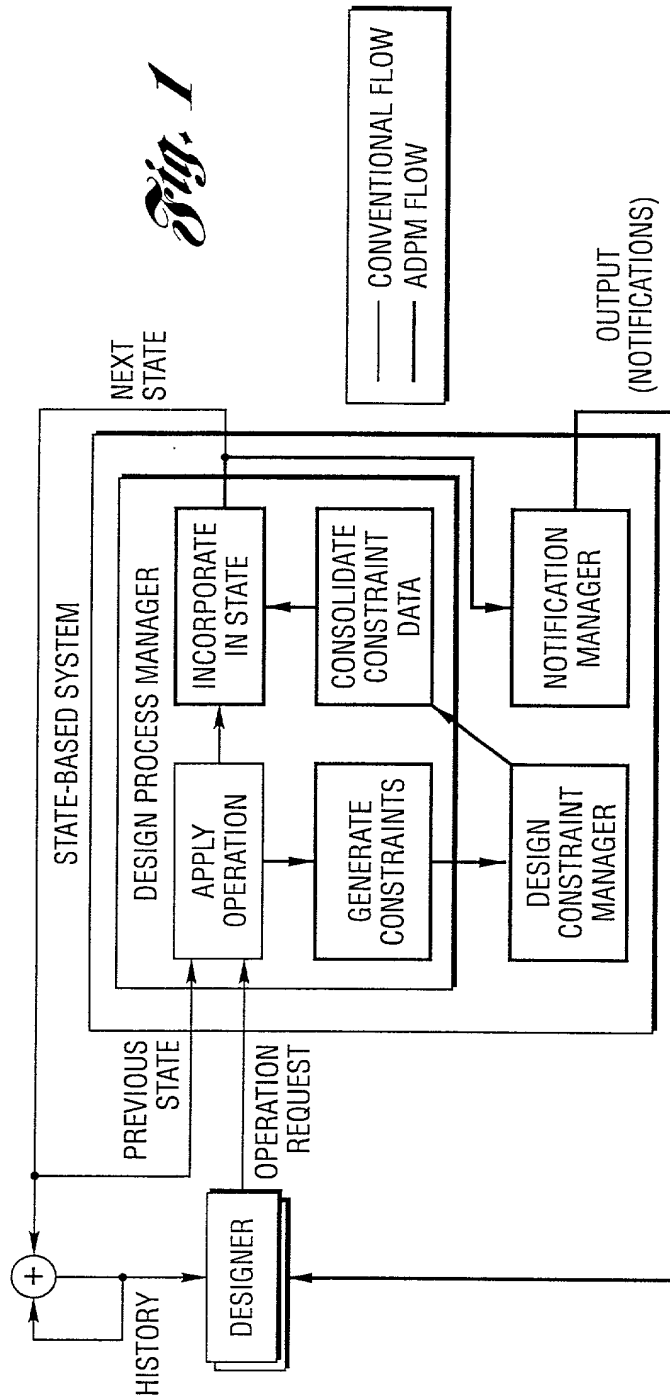First Named Inventor: **Juan-Antonio Carballo, et al.**
Application Serial No.: / Atty. Docket No.: **UOM 0246 PUS**

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Fig. 1

Title: Method And System For Providing Constraint-Based Guidance To A Designer In A Collaborative Design Environment
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Domain: Amplifier+Mixer

Object name: LNA+Mixer

Version number: 1.0.1 (current)

Diff-pair-W   String   AbstractionLevels: Transistor, Geometry
Consistent values:(2.500000 3.698225)

Freq-ind   String   AbstractionLevels: Transistor, Geometry
Consistent values: (0.174255 0.500000)

LNA-gain   String   AbstractionLevels: Geometry
Consistent values: (51.121929 181.420120)

LNA-power   String   AbstractionLevels: Geometry
Consistent values: (164.438431 200.000000)

LNA-Zin   String   AbstractionLevels: Geometry
Consistent values: (50.000000 73.964500)

[Done]   [View...]   [Create New Version...]

Fig. 2

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Constraints and properties for problem: Design a Amplifier+Mixer at the Geometry level

CONSTRAINTS

Constraint/Argument	Status/Value
▲ MaxLNA-P-C11	Consistent
▲ MinLNA-Zin-C8	Consistent
▲ TotalGain-C12	Consistent
▲ LNA-Zin-C9	Consistent
▲ LNAGain-C10	Consistent
▲ LNAPower-C7	Consistent

PROPERTIES

Property		Status/Value	
▶ P.Diff-pair-W8	3	<no value assigned>	LNA+Mixer
LNAPower-C7		Consistent	
LNA-Zin-C9		Consistent	
LNAGain-C10		Consistent	
▲ P.LNA-power9	2	<no value assigned>	LNA+Mixer
▲ P.LNA-Zin10	2	<no value assigned>	LNA+Mixer
▲ P.MinLNA-Zin11	1	50	LNA+Mixer
▲ P.LNA-gain12	2	<no value assigned>	LNA+Mixer
▶ P.Freq-ind13	2	<no value assigned>	LNA+Mixer
LNAGain-C10		Consistent	

View property history...

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Fig. 3

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Constraints and properties for problem: Design a Amplifier+Mixer at the Geometry level

CONSTRAINTS

▲ LNA-Zin-C9	Violated
▼ TotalGain-C13	Violated
P.Mintransceiver-gain16	32
▼ P.LNA-gain12	<no value assigned> [48.000000 48.000000] required by LNAGain-C10
▼ P.Insertion-loss6	<no value assigned> [-19.121931 -19.121931] required by FilterLoss-C4
▲ LNAGain-C10	Consistent
LNAPower-C7	Consistent

PROPERTIES

Property/Constraint	# c's	Value/Status	Object	Connected violations
▲ P.Diff-pair-W6	3	2.5	LNA+Mixer	2
▲ P.LNA-power9	2	<no value assigned>	LNA+Mixer	1
▲ P.LNA-Zin10	2	<no value assigned>	LNA+Mixer	1
▲ P.MinLNA-Zin11	1	40	LNA+Mixer	1
▲ P.LNA-gain12	2	<no value assigned>	LNA+Mixer	1
▲ P.Freq-ind13	2	0.2	LNA+Mixer	
▲ P.MaxLNA-power14	1	200	LNA+Mixer	
▲ P.Maxfreq-ind15	1	0.5	LNA+Mixer	

View property history...

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Fig. 4